

ABSTRACT

Enhancement of the power conversion efficiency and reduction of switching noise of a power supply circuit are achieved. The power supply circuit includes, on the primary side, a composite resonance type converter formed from a current resonance type converter and a partial voltage resonance circuit in combination, and is configured so as to produce a plurality of secondary side DC output voltages. A particular one of the plural secondary side DC output voltages is controlled to a constant voltage by variably controlling the switching frequency of a primary side switching converter. Each of the remaining secondary side DC output voltages is controlled to a constant voltage by adjusting the level of control current to be supplied to a controlling winding of a control transformer in response to the level of the secondary side DC output voltage to adjust the inductance of a controlling winding of the control transformer inserted in a rectification current path.